**Momentum 5 Paragraph Essay**

**Assignment:** Please write a 5-paragraph essay answering the following question. The article we read in class is an introduction, but you will need to research the answer to the question in the library or online. You may use your Physical Science Book.

**Grading:** I will be grading you on the following criteria…

1. Your answer must be complete, with all of the parts of the question included.
2. Your paper must be organized as if you were writing for your English class. Please make sure that the order of your paper makes sense. The first paragraph should be an introduction, followed by three supporting paragraphs, and a concluding paragraph.
3. The paper must be typed double-spaced. If you do not have access to a computer, please neatly hand-write the paper and I will give you a minor deduction in points.
4. **YOUR OWN WRITING-Please make sure that the content of your paper is your own words and sentences. DO NOT copy and paste from anywhere, as you will fail your paper.**
5. Resources – Please include a list of references for your paper. Google and Ask.com are NOT references. If you need help with these, please see your English teacher or me. This citation maker will help you with your references: <http://www.oslis.org/resources/cm/mlacitationss>

**Question**

Imagine that a large, fast moving car collides with a small, slow moving car head on. Can you predict what will happen after the collision? See the diagram below, which illustrates this problem. In your answer, please include…

-Which of Newton’s Laws helps you answer this question.

-Which direction the heavier, faster moving car will go in after the collision.

-Which direction the lighter, slower moving car will go in after the collision.

-The total amount of momentum in the system.

-Why it is a closed system.

 

m = 2,000 kg m = 10,000 kg

v = 14 m/s v = 40 m/s